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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/924,731	08/08/2001	Sharad Sundaresan	MSFT-0688/180597.1	3961
41505 7590 10/17/2008 WOODCOCK WASHBURN LLP (MICROSOFT CORPORATION) CIRA CENTRE, 12TH FLOOR 2929 ARCH STREET PHILADELPHIA, PA 19104-2891				
EXAMINER BILGRAMI, ASGHAR H				
ART UNIT 2443		PAPER NUMBER		
MAIL DATE 10/17/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

09/924,731

**Applicant(s)**

SUNDARESAN ET AL.

**Examiner**

ASGHAR BILGRAMI

**Art Unit**

2443

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 July 2008.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19, 21-32, 34, 35 and 37 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 19, 21-32, 34, 35 and 37 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 08 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Claim Objections***

1. Claim 24 objected to because of the following informalities: It depends on a cancelled claim 20. For examining purposes examiners assumed it to be dependent on claim 19. Appropriate correction is required.
2. Claims 19, 32 objected to because of the following informalities: "caching, and the establishing occur by the network access module of the client computer. Examiner advise the applicant to rephrase this limitation. For examining purposes examiner has assumed that ".....establishing occur at the network access module....." . Appropriate correction is required.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 19, 32, & 35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Applicant's disclosure fails to disclose the newly amended limitation "sending

a Server Resolution Protocol request to the cluster of servers, **wherein the request includes the combination of VIA cluster name and the VIA server name**" and **"cache contains mapping between the network address of the second server and the combination of the VIA cluster name and the VIA server name"**.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 19, 22, 23, 25-32, 34, 35 & 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruck et al (U.S. 6,801,949 B1), Hart (U.S. 6,154,765) and Brendel et al (U.S. 5,774,660).

7. As per claims 19, 32 & 35 Bruck disclosed a method for providing seamless fail-over of communication between a client computer and a cluster of servers, wherein the cluster of servers includes a first server and a second server and wherein the client computer includes a client application, and a network access module by which the client

application communicates (col.2, lines 38-65) wherein the network access module has a cache, the method comprising: detecting a failure of a first Virtual Interface Architecture (VIA) protocol connection with the first server (col.2, lines 38-65) ; wherein the first server maps to a combination of a VIA cluster name and a VIA server name; sending a Server Resolution Protocol request to the cluster of servers {Applicant is merely calling the Address Resolution Protocol in Bruck as Server Resolution Protocol, they both have the same functionality} (col.15, lines 20-65) , wherein the request includes the combination of VIA cluster name and the VIA server name (col.27, lines 23-45, figures 12, 23 & 38) receiving a response from the second server, wherein the response includes a network address of the second server; caching the response from the second server in the cache of the network access module of the client computer (col.17, lines 62-67 & col.18, lines 1-7) such that the cache contains a mapping between the network address of the second server and the combination of the VIA cluster name and the VIA server name (col.15, lines 20-65) and establishing a second Virtual Interface Architecture Protocol connection with the second server by way of the network address of the second server (col.27, lines 46-67 & col.8, lines 1-24). Although Burk did disclose that the server cluster provides a Highly available Internet Link to achieve transparent web server fail-over but Bruck did not explicitly disclose wherein the first and second connection are over a Virtual Interface Architecture (VIA) protocol and wherein the detecting, the sending, the receiving, and the establishing occur at the network access module, transparent to the client application. In the same filed of endeavor Hart disclosed wherein the first and second connection are over a Virtual Interface

Architecture (VIA) protocol (col.8, lines 31-33) and wherein the detecting, the sending, the receiving, caching and the establishing occur at the network access module of the client computer, transparent to the client application (col.2, lines 21-25).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated the implantation Virtual interface Architecture protocol as disclosed by Hart into the method of seamless fail-over of communication between a client and a cluster of servers in order to make the system more scalable resulting in a more reliable network communication between network devices.

Although Burk did disclose caching the response from the server on the client computer. However Burk did not explicitly disclose that the cache was explicitly stored in the network access module of the client computer. In the same filed of endeavor Brendel disclosed further comprising caching the response from the second server in a cache connected to the network access module (col.4, lines 5-16).

It would have been oblivious to one in the ordinary skill in the art at the time the invention was made to have incorporated purging the cache prior to caching the response from the second server as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

8. As per claim 22 Bruck-Hart-Brendel disclosed the method of claim 21, further comprising verifying that the second server maps to the server name (Burk, col.35, lines 46-67 & col.36, lines 7-17).
9. As per claim 23 Bruck-Hart-Brendel disclosed the method of claim 22, wherein verifying that the second server maps to the server name comprises verifying that the second server is responsive to the server name (Burk, col.35, lines 46-67 & col.36, lines 7-17).
10. As per claim 25 Bruck-Hart-Brendel disclosed the method of claim 19, wherein the request is sent by User Datagram Protocol (UDP) (Burk, col.14, lines 55-56 & col.15, lines 1-10)
11. As per claim 26 Bruck-Hart-Brendel disclosed the method of claim 19, wherein the first server and second server store and retrieve relational data by way of Structured Query Language (SQL) commands (col.7, lines 30-37)
12. As per claim 27 Bruck-Hart-Brendel disclosed the method of claim 19, wherein the first server is designated as active and the second server is designated as passive (Burk, col.2, lines 6-15)

13. As per claim 28 Bruck-Hart-Brendel disclosed the method of claim 27, wherein the second server periodically sends a keep- alive message to the first server (Bruck, col.3, lines 41-59).

14. As per claim 29 Bruck-Hart-Brendel disclosed the method of claim 28, wherein the second server assumes designation as active when the first server fails to response to the keep-alive message (Bruck, col.3, lines 10-59).

15. As per claim 30 Bruck-Hart-Brendel disclosed the method of claim 19, wherein the response contains a plurality of port numbers, wherein each port number corresponded to a different communications protocol (Bruck, col.7, lines 30-37).

16. As per claim 31, 34 & 37 Bruck-Hart-Brendel disclosed the method of claim 19, wherein the first connection and the second connection comprise VIA formatted packets (Hart, col.8, lines 30-33).

### ***Claim Rejections - 35 USC § 103***

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.



18. Claims 21, 24 & 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruck et al (U.S. 6,801,949 B1), Hart (U.S. 6,154,765) and Brendel et al (U.S. 5,774,660).

19. As per claims 20, 33 & 36 Bruck-Hart disclosed the method of claim 19. However Bruck-Hart did not explicitly disclose further comprising caching the response from the second server in a cache connected to the network access module. In the same filed of endeavor Brendel disclosed further comprising caching the response from the second server in a cache connected to the network access module (col.4, lines 5-16).

It would have been oblivious to one in the ordinary skill in the art at the time the invention was made to have incorporated caching the response from the second server on the network access module as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

20. As per claim 21 Bruck-Hart disclosed the method of claim 20. However Bruck-Hart did not explicitly disclose wherein the establishing the second connection comprises retrieving the network address of the second server from the cache. In the same filed of endeavor Brendel disclosed the establishing the second connection

comprises retrieving the network address of the second server from the cache (col.2, lines 41-52).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated the establishment of the second connection to the second server by utilization of the second server network address from the cache as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

21. As per claim 24 Bruck-Hart disclosed the method of claim 19. However Bruck-Hart did not explicitly disclose further comprises purging the cache prior to caching the response from the second server. In the same field of endeavor Brendel disclosed further comprises purging the cache prior to caching the response from the second server (Bruck, col.3, lines 40-49).

It would have been obvious to one in the ordinary skill in the art at the time the invention was made to have incorporated purging the cache prior to caching the response from the second server as disclosed by Brendel in the method of seamless failover of communication between a client and cluster of servers utilizing a Virtual Interface Architecture (VIA) as disclosed by Bruck and Hart in order to make the client and server connection more efficient resulting in a network system that is robust and reliable.

***Response to Arguments***

22. Applicant's arguments filed 7/2/2008 have been fully considered but they are not persuasive.

23. Applicant argued that the newly amended claim limitations are anticipated by the neither Burk nor Hart.

As to applicant's argument examiner has mapped the newly amended limitations to the pertinent sections of Burk in the office action above.

24. Applicant argued that neither Burk nor Hart disclose "Server Resolution protocol" as disclosed by the applicant.

As to applicant's argument the functionality of "Server Resolution Protocol " as disclosed by the applicant on pages 8 Lines 26-30 & page 9, lines 1-22 is identical to the "Address Resolution Protocol" disclosed by Burk. Therefore Burk discloses "server Resolution Protocol".

25. Examiner advises the applicant to incorporate the aspect of the SQL functionality into the limitations of the independent claims to further the prosecution in this application.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ASGHAR BILGRAMI whose telephone number is (571)272-3907. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia L.M. Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. B./  
Examiner, Art Unit 2443

/Nathan J. Flynn/  
Supervisory Patent Examiner, Art Unit 2454